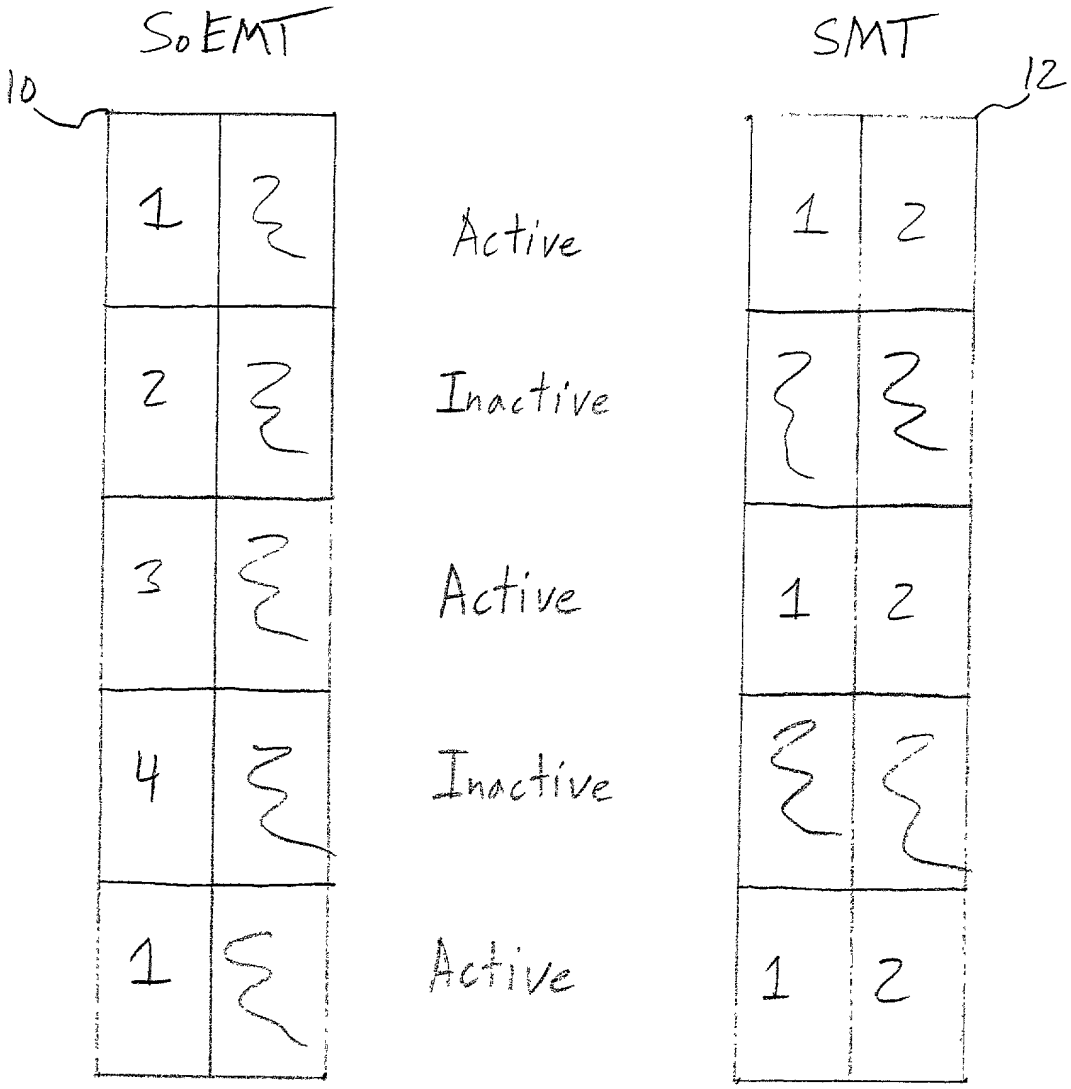

Fig. 1A
(Prior Art)

Fig 1B
(Prior Art)

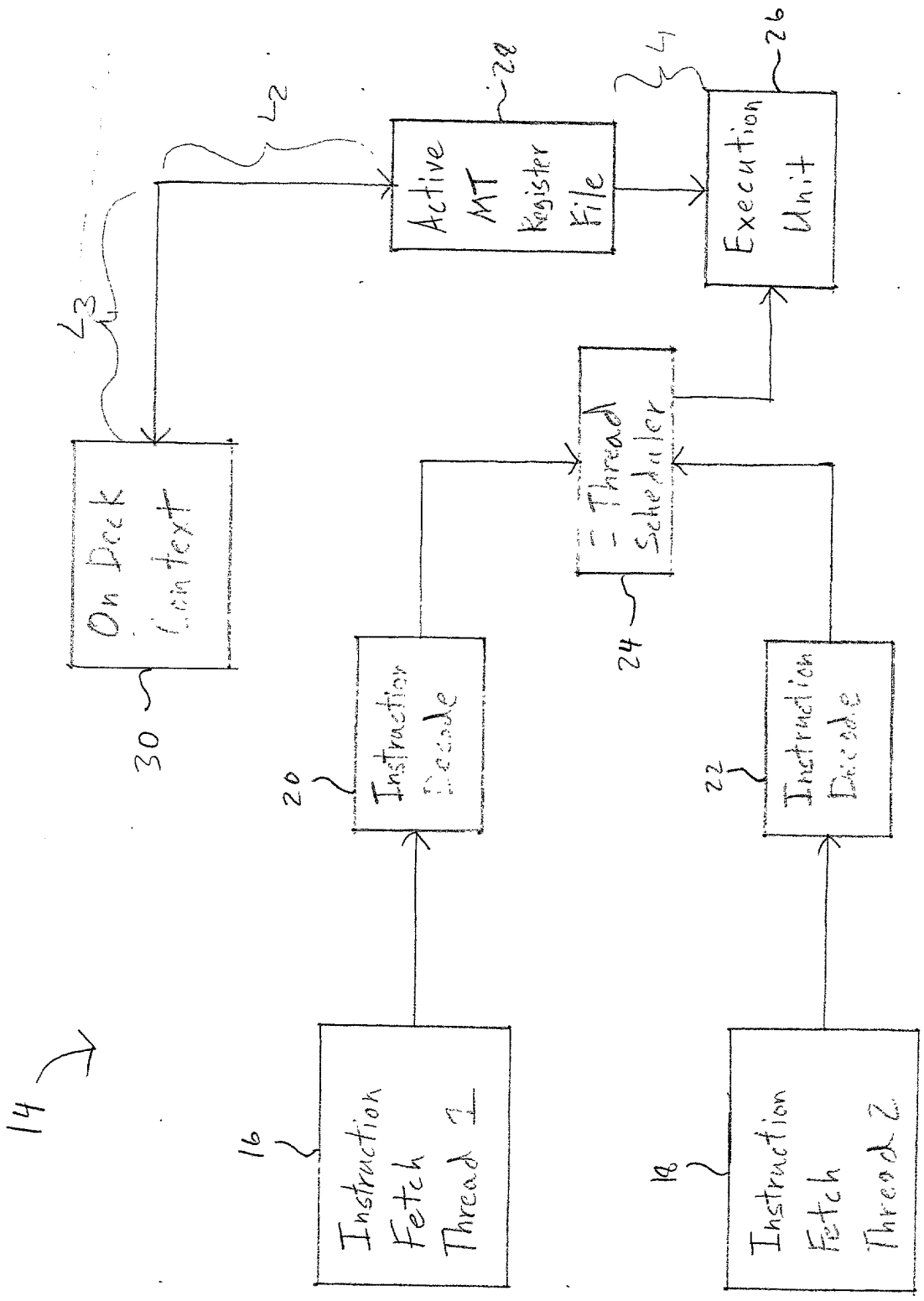
14
16
Instruction Fetch Thread 1
18
Instruction Fetch Thread 2
20
Instruction Decode
22
Instruction Decode
24
Thread Scheduler
26
Execution Unit
28
Active MT Register File
30
On Deck Context
42
43
44

Fig. 2

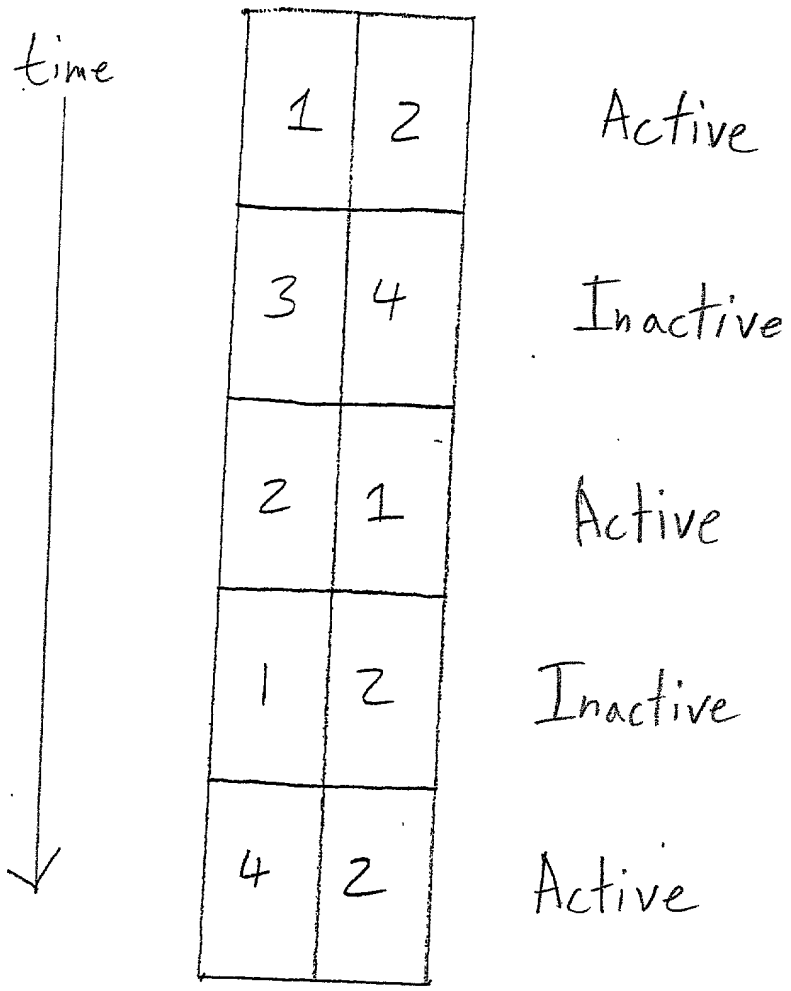

Fig. 3

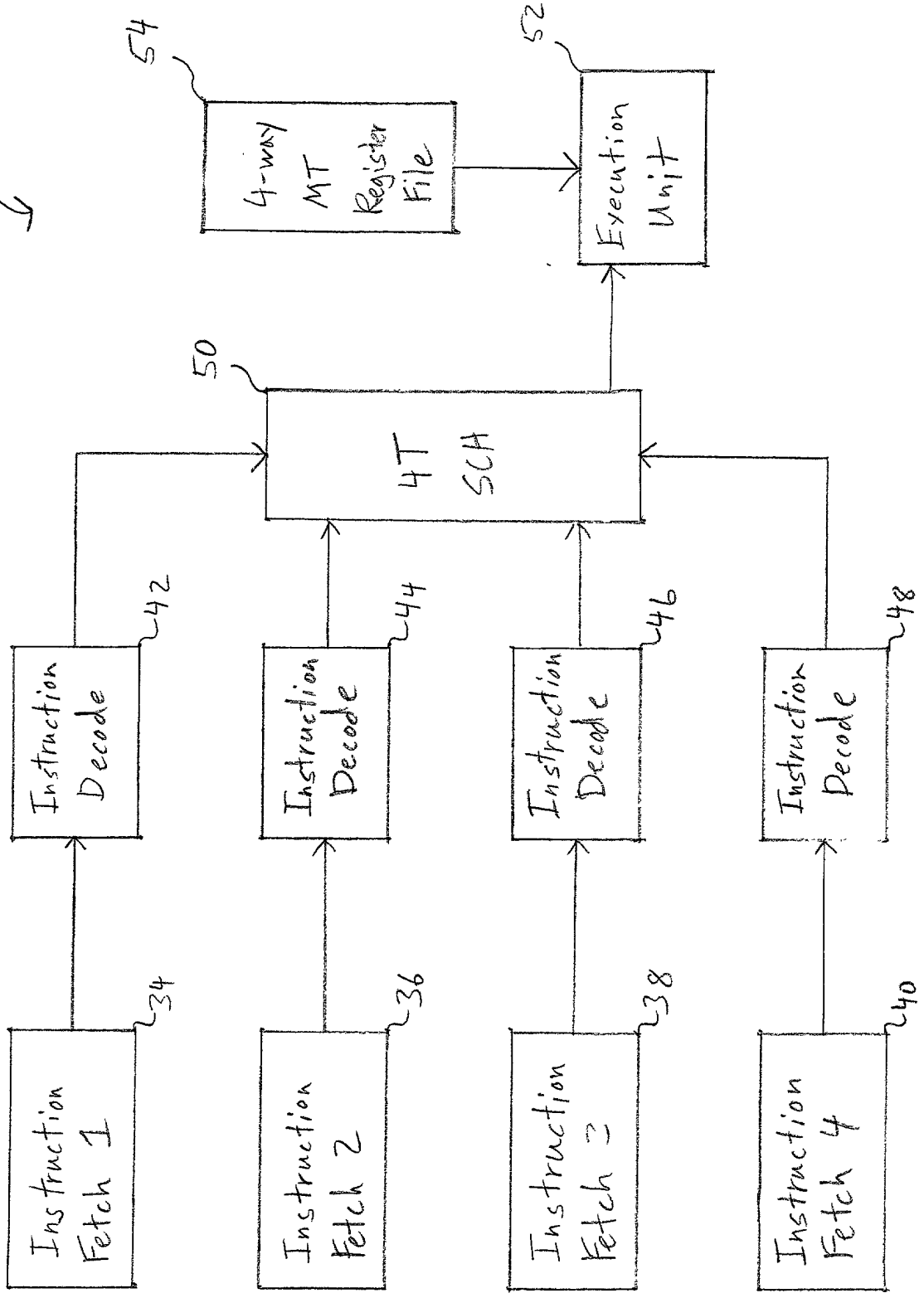
32
54
4-way MT Register File
52
Execution Unit
50
4T SCH
Instruction Decode
42
Instruction Decode
44
Instruction Decode
46
Instruction Decode
48
Instruction Fetch 1
34
Instruction Fetch 2
36
Instruction Fetch 3
38
Instruction Fetch 4
40

Fig. 4

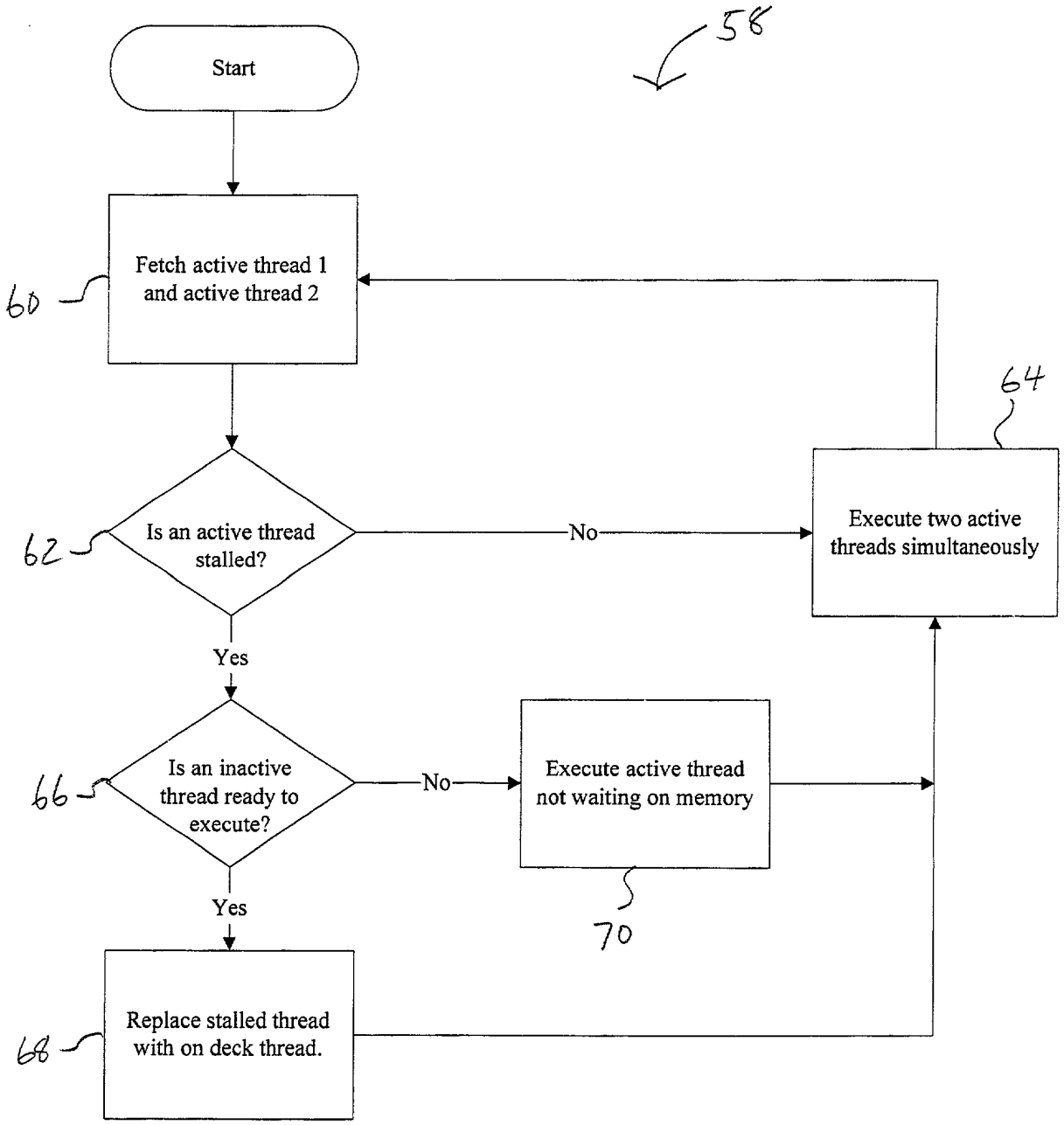
56
Start
Fetch active thread 1 and active thread 2
60
Is an active thread stalled?
62
No
Execute two active threads simultaneously
64
Yes
Is an inactive thread ready to execute?
66
No
Execute active thread not waiting on memory
70
Yes
Replace stalled thread with on deck thread.
68

Figure 5